ANNUAL INDIANA ADVANCED PLACEMENT PERFORMANCE REPORT 2017

Indiana Department of Education

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OVERVIEW OF AP IN INDIANA, 2017

Participation and Success

Advanced Placement (AP) is a research-backed method to facilitate student participation and success through delivery of college-level courses and corresponding exams in the high school setting to qualified high school students. Students who demonstrate success in AP courses are predicted to outperform their peers who do not take or have not had success in these courses. The current research suggests passing/qualifying on an exam (scoring a 3, 4, or 5 on a scale of 1-5) is predictive of greater college success.1 The Indiana Department of Education (IDOE) has committed to expanding **participation and success** on AP exams in order to have the highest percent of college-educated citizens in the United States.

The College Board collects individual student-level AP performance data throughout each student's secondary school experience. Using that data, the College Board publishes an annual "AP Report to the Nation" that provides individual state performance levels which may serve as comparative data. Associated with the research, the most important data presented is the number of graduates for the published year who passed an AP exam at some point during their high school career; the IDOE refers to this as the College Board Metric (CBM).

The formula for improving outcomes in Indiana on AP coursework must include an increase in both **participation and success** – more students, in all demographics, participating in AP coursework and the corresponding exam, and a greater percentage of those students passing the AP exam.

¹¹ College Outcomes Comparisons by AP and Non-AP High School Experiences. Hargrove, L., Godin, D., & Dodd, B. (2008) New York: The College Board

AP: Participation and Performance Overview

		Indiana - /	All Schools	Total Group - All Schools					
=	# of Exam- Takers	% of Total	# of Exams Taken	# of Scores 3-5	# of Exam- Takers	% of Total	# of Exams Taken	# of Scores 3-5	
Total Change from last year	50,154 +2.8%	100.0%	84,425 +3.0%	44,253 +7.1%	2,741,426 +4.99%	100.0%	4,957,931 +5.37%	2,877,789 +5.45%	
Female Change from last year	28,540 +3.8%	55.4%	46,788 +4.0%	23,013 +8.4%	1,543,873 +5.1%	55.0%	2,724,405 +5.49%	1,505,941 +5.0%	
Male Change from last year	21,614 +1.5%	44.6%	37,637 +1.8%	21,240 +5.8%	1,197,553 +4.85%	45.0%	2,233,526 +5.24%	1,371,848 +5.95%	
American Indian Change from last year	114 -14.9%	0.23%	169 -17.2%	43 -22.4%	8,882	0.3%	13,655	5,050	
Asian Change from last year	2,712 7.7%	5.41%	6,254 9.5%	1,940 9.9%	358,006	16.0%	792,688	559,711 -	
Black Change from last year	2,632 -2.0%	5.25%	3,942 -3.7%	719 4.1%	197,300	6.3%	310,508	92,499	
Hispanic or Latino Change from last year	4,342 10.2%	8.66%	6,935 9.5%	1,832 16.4%	625,315	21.4%	1,062,625	452,275	
Pacific Islander Change from last year	26 4.0%	0.05%	41 -4.7%	10 -30.4%	4,883	0.2%	8,006	3,298	
White Change from last year	37,604 1.5%	74.98%	62,550 1.6%	20,536 5.5%	1,381,717	50.0%	2,480,419	1,595,245 -	
Two or More Races Change from last year	2,081 16.8%	4.15%	3,547 18.5%	1,102 29.0%	119,136	4.4%	216,283	129,259	
Other Change from last year	20 -47.4%	0.04%	32 -59.5%	9 -58.8	722 -	0.0%	1,153	594	
No Response Change from last year	623 -1.3%	1.24%	955 -0.4%	265 0.5%	45,465 -	1.5%	72,594 -	39,858 -	

AP: Exam Participation and Performance (Part 1 of 3)

AP: Exam Participation and Performance (Part 1 of 3)

		# of Exams	% of Total	Score of 1	Score of 2	# Score of 3	# Score of 4	Score of 5	% Score of 1	% Score of 2	% Score of 3	% Score of 4	Score of 5
Total # of Exams	2016	81,953	100%	18,796	21,845	19,498	13,302	8,512	23%	27%	24%	16%	10%
Total # OF Exams	2017	84,425	100%	16,951	23,221	21,133	14,522	8,598	20%	28%	25%	17%	10%
Adleston	2016	317	0%	56	87	93	56	25	18%	27%	29%	18%	8%
Art History	2017	298	0%	35	79	77	74	33	12%	27%	26%	25%	11%
Distance .	2016	4,930	6%	710	1,576	1,628	793	223	14%	32%	33%	16%	5%
Biology	2017	4,956	6%	446	1,543	1,833	896	238	9%	31%	37%	18%	5%
Colordon AD	2016	7,477	9%	3,038	821	1,227	1,110	1,281	41%	11%	16%	15%	17%
Calculus AB	2017	7,369	9%	1,787	1,899	1,497	1,120	1,066	24%	26%	20%	15%	14%
Calandar BC	2016	1,536	2%	191	106	263	216	760	12%	7%	17%	14%	49%
Calculus BC	2017	1,709	2%	142	241	352	296	678	8%	14%	21%	17%	40%
Obista	2016	3,529	4%	1,005	1,026	883	405	210	28%	29%	25%	11%	6%
Chemistry	2017	3,591	4%	1,071	1,089	822	415	194	30%	30%	23%	12%	5%
Crimiese Language and	2016	41	0%	9	3	13	4	12	22%	7%	32%	10%	29%
	2017	53	0%	4	9	12	4	24	8%	17%	23%	8%	45%
Comparative Government and Politics	2016	73	0%	12	14	13	17	17	16%	19%	18%	23%	23%
	2017	125	0%	14	19	35	37	20	11%	15%	28%	30%	16%
2 1011623 V	2016	782	1%	248	133	158	133	110	32%	17%	20%	17%	14%
Computer Science A	2017	789	1%	276	103	165	140	105	35%	13%	21%	18%	13%
Computer Science	2016												
Principles	2017	554	1%	30	85	226	147	66	5%	15%	41%	27%	12%
English Language and	2016	10,587	13%	1,645	3,891	2,652	1,540	859	16%	37%	25%	15%	8%
Composition	2017	11,381	13%	1,546	3,969	3,126	1,886	854	14%	35%	27%	17%	8%
English Literature and	2016	8,807	11%	987	3,655	2,544	1,211	410	11%	42%	29%	14%	5%
Composition	2017	8,727	10%	1,058	3,588	2,547	1,135	399	12%	41%	29%	13%	5%
	2016	3,389	4%	1,119	920	539	652	159	33%	27%	16%	19%	5%
Environmental Science	2017	3,632	4%	1,044	994	593	761	240	29%	27%	16%	21%	7%
F	2016	1,516	2%	192	512	436	225	151	13%	34%	29%	15%	10%
European History	2017	1,366	2%	117	418	367	293	171	9%	31%	27%	21%	13%
French Language and	2016	271	0%	13	39	85	81	53	5%	14%	31%	30%	20%
Culture	2017	296	0%	9	62	114	70	41	3%	21%	39%	24%	14%

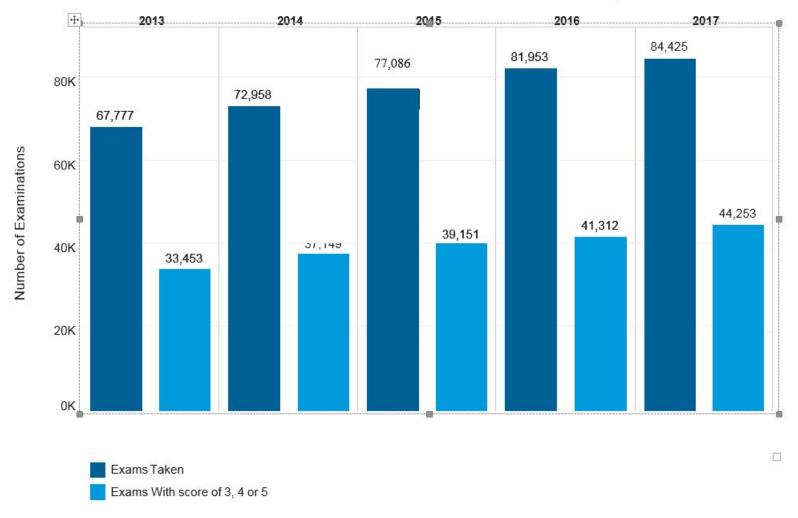
AP: Exam Participation and Performance (Part 2 of 3)

		# of Exams	% of Total	# Score of 1	# Score of 2	# Score of 3	# Score of 4	# Score of 5	% Score of 1	% Score of 2	% Score of 3	% Score of 4	% Score of 5
German Language and	2016	128	0%	14	17	35	39	23	11%	13%	27%	30%	18%
Culture	2017	122	0%	26	24	24	31	17	21%	20%	20%	25%	14%
Human Coography	2016	2,145	3%	549	420	450	472	254	26%	20%	21%	22%	12%
Human Geography	2017	2,383	3%	792	465	521	375	230	33%	20%	22%	16%	10%
Italian Language and	2016	3	0%	0	0	0	0	3	0%	0%	0%	0%	100%
Culture	2017	3	0%	0	0	0	0	3	0%	0%	0%	0%	100%
Japanese Language and	2016	18	0%	7	0	5	1	5	39%	0%	28%	6%	28%
Culture	2017	21	0%	5	1	8	3	4	24%	5%	38%	14%	19%
1 -12-	2016	79	0%	2	23	35	16	3	3%	29%	44%	20%	4%
Latin	2017	81	0%	5	26	29	16	5	6%	32%	36%	20%	6%
	2016	1,496	2%	428	292	232	317	227	29%	20%	16%	21%	15%
Macroeconomics	2017	1,592	2%	435	261	274	371	251	27%	16%	17%	23%	16%
Microeconomics 2016 2017	2016	1,839	2%	546	306	412	384	191	30%	17%	22%	21%	10%
	2017	1,819	2%	461	252	342	474	290	25%	14%	19%	26%	16%
	2016	415	1%	60	130	110	59	56	14%	31%	27%	14%	13%
Music Theory	2017	384	0%	60	104	87	53	80	16%	27%	23%	14%	21%
DL:it	2016	3,274	4%	1,204	969	632	356	113	37%	30%	19%	11%	3%
Physics 1	2017	2,943	3%	896	980	531	422	114	30%	33%	18%	14%	4%
DLi 3	2016	508	1%	66	202	154	51	35	13%	40%	30%	10%	7%
Physics 2	2017	436	1%	65	165	129	49	28	15%	38%	30%	11%	6%
Physics C: Electricity	2016	370	0%	61	99	55	77	78	16%	27%	15%	21%	21%
and Magnetism	2017	379	0%	49	86	68	102	74	13%	23%	18%	27%	20%
Dhusias C. Mashasi	2016	849	1%	105	136	159	223	226	12%	16%	19%	26%	27%
Physics C: Mechanics	2017	981	1%	119	158	211	249	244	12%	16%	22%	25%	25%
December 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	2016	4,833	6%	1,168	820	979	1,121	745	24%	17%	20%	23%	15%
Psychology	2017	5,199	6%	1,218	858	1,114	1,244	765	23%	17%	21%	24%	15%
D	2016	229	0%	0	57	92	53	27	0%	25%	40%	23%	12%
Research	2017	212	0%	0	27	69	54	62	0%	13%	33%	25%	29%

AP: Exam Participation and Performance (Part 3 of 3)

		# of Exams	% of Total	# Score of 1	# Score of 2	# Score of 3	# Score of 4	# Score of 5	% Score of 1	% Score of 2	% Score of 3	% Score of 4	% Score of 5
Seminar	2016	373	0%	3	35	182	83	70	1%	9%	49%	22%	19%
Schiller	2017	531	1%	2	15	314	126	74	0%	3%	59%	24%	14%
Spanish Language and	2016	1,120	1%	49	202	338	322	209	4%	18%	30%	29%	19%
Culture	2017	1,186	1%	56	197	403	335	195	5%	17%	34%	28%	16%
Spanish Literature and	2016	65	0%	8	18	23	12	4	12%	28%	35%	18%	6%
Culture	2017	83	0%	2	19	38	20	4	2%	23%	46%	24%	5%
Statistics	2016	3,657	4%	942	591	838	778	508	26%	16%	23%	21%	14%
2017	2017	3,666	4%	1,007	738	892	548	481	27%	20%	24%	15%	13%
Studio Art. 2-D Design	2016	466	1%	7	110	151	128	70	2%	24%	32%	27%	15%
	2017	521	1%	8	54	180	164	115	2%	10%	35%	31%	22%
Studio Art: 3-D Design	2016	129	0%	2	29	45	39	14	2%	22%	35%	30%	11%
Portfolio	2017	136	0%	4	27	49	38	18	3%	20%	36%	28%	13%
Studio Art: Drawing	2016	267	0%	4	50	89	69	55	1%	19%	33%	26%	21%
Portfolio	2017	240	0%	0	26	73	75	66	0%	11%	30%	31%	28%
United States	2016	3,708	5%	1,028	937	894	463	386	28%	25%	24%	12%	10%
Government and Politics	2017	3,933	5%	1,044	969	1,001	507	412	27%	25%	25%	13%	10%
Listed Chabas Lista	2016	8,547	10%	2,530	2,276	1,816	1,217	708	30%	27%	21%	14%	8%
United States History	2017	8,249	10%	2,461	2,177	1,785	1,196	630	30%	26%	22%	14%	8%
w. Jira.	2016	4,180	5%	788	1,343	1,238	579	232	19%	32%	30%	14%	6%
World History	2017	4,479	5%	657	1,494	1,225	796	307	15%	33%	27%	18%	7%

AP: Number of Exams and Number of Exams with Scores of 3, 4 or 5



AP Performance by Race/Ethnicity - Students with Scores of 3, 4 or 5



DATA EVIDENCE AND IMPLICATIONS:

The Data Shows:

- Total number of exams taken has increased 3%, while scores of a 3,4, or 5 has increased 7.1%.
- Exams taken have increased and exams scores of 3, 4, or 5 have increased every year over the past 6 years
- From 2016 to 2017, there was a 3.8% increase in the number of female students taking an exam and a 1.5% increase in male students.
- Popular subjects (more than 3000 tests) with the highest percentage of qualifying tests:
 - (1) Psychology (60%)
 - (2) English Language & Composition (52%)
 - (3) Biology (60%)
 - (4) Statistics (52%)
 - (5) World History (52%)

Policy Implications:

Indiana is improving the number of students participating in AP exams and is also striving to keep pace with the qualification rate. If Indiana wishes to become one of the top performing AP states in the nation, measured by the number of graduates qualifying on an exam at some point during their high school career, then Indiana must:

- 1. Provide ongoing training for current AP math, English, science and social studies teachers.
- 2. Recruit and train more quality AP math, English, science and social studies teachers.
- 3. Provide more rigorous math, English, science and social studies classes to students before they enter AP courses; and align curriculum for optimal AP course preparation.
- 4. Encourage schools to align early high ability programs to AP course prerequisites.

ADVANCED PLACEMENT FUNDING AND TEACHER TRAINING

CURRENT STATE FUNDING

ADVANCED PLACEMENT PROGRAM FUNDING

For Fiscal Years 2017-2018 and 2018-2019, the state appropriation will be \$5,200,000 per year. This appropriation is to provide funding for students of accredited public and nonpublic schools to take the College Board Advanced Placement math, English, and science exams and to supplement any federal funds awarded for non-math-and-science and English Advanced Placement exams taken by students qualified for the Free or Reduced Price Lunch program. Any remaining funds available after exams have been paid shall be prioritized for use by teachers of math and science AP courses to attend PD training for those courses.

PSAT PROGRAM FUNDING

For Fiscal Year 2017-2018 the state appropriation is \$1,900,000 and for Fiscal Year 2018-2019, the state appropriation will increase to \$2,200,000. The appropriation is to provide funding for students of accredited public and nonpublic schools in grade 10 and 11 to take the PSAT exam.

FEDERAL FUNDING

THE USDOE ended the grant to support eligible low-income students who (1) are enrolled in an advanced placement course and (2) plan to take an advanced placement test in 2016. There was no federal funding for 2017 exams.

TEACHER TRAINING

In 2017, in addition to the professional development provided to AP TIP-IN educators:

AP One-Day Workshops – Butler University

- 609 teachers attended
- Workshop offered for 24 AP courses

AP Mentoring is a teacher-to-teacher support program for teachers of all experience levels offered by the College Board. The College Board's AP Mentoring is the only program of its kind in the nation that specifically recruits, selects and trains mentor teachers who are active AP teachers in their AP subject area to mentor other AP teachers. AP Mentoring is available for teachers of AP English Literature and Composition, AP Computer Science and Principles, and AP U.S. History. Mentee teachers meet monthly over a twelve month period to discuss instructional needs in their AP classrooms. Mentee teachers with 0 to 2 years of AP teaching experience are grouped together in order to provide focused support as they build knowledge of the AP Program; likewise, more experienced teachers will be grouped together to share strategies and best practices. Mentees also have exclusive access to sample exemplary lesson plans and instructional activities specifically designed for use in the AP classroom. In addition, mentees receive exclusive access to classroom resources developed by their mentor teachers to support them throughout their mentoring experience. Funding allows for 56 teachers to participate in the AP Mentoring program.

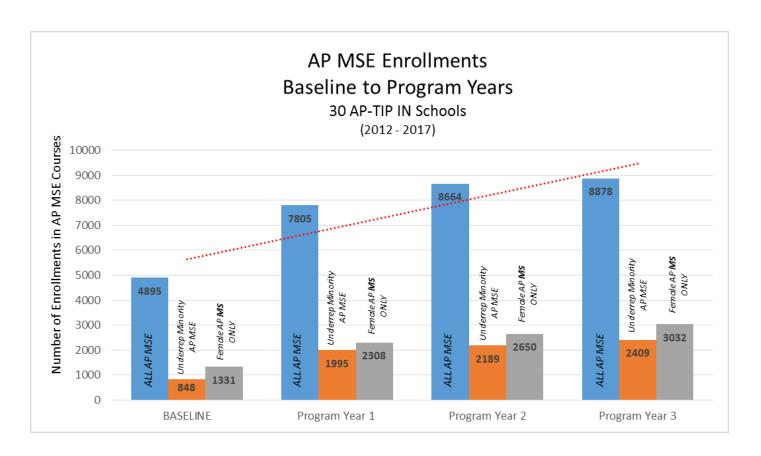


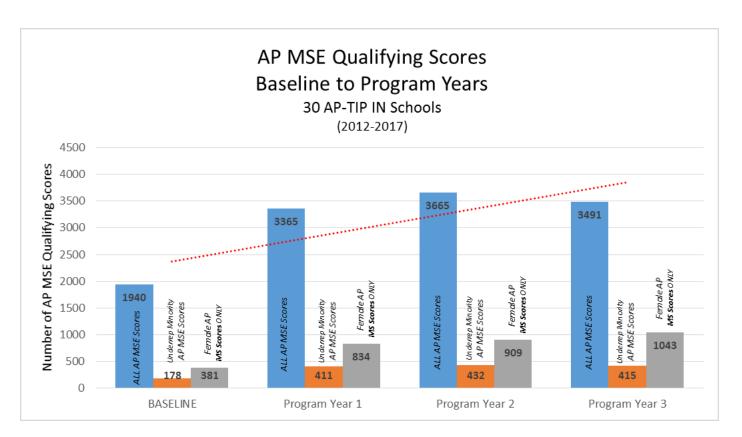
AP-TIP IN Program Update

Karen M. Morris AP-TIP IN Program Director October 24, 2017 Starting in 2012, the AP-TIP IN program validated the strategies of the National Math and Science Initiative (NMSI) with funding from the U.S. DOE Investing in Innovation (i3) fund grant. The goals of the AP-TIP IN Program are to:

- Increase the number of students taking AP math, science, and English (MSE) courses (ACCESS); and
- Increase the number of AP MSE Qualifying Scores (scores of 3, 4, or 5) at program schools (SUCCESS) compared to baseline year.

From 2012 – 2017, 30 Indiana public high schools participated in the program. The graphs below show the impact of AP-TIP IN on these schools as each participated over three program years.





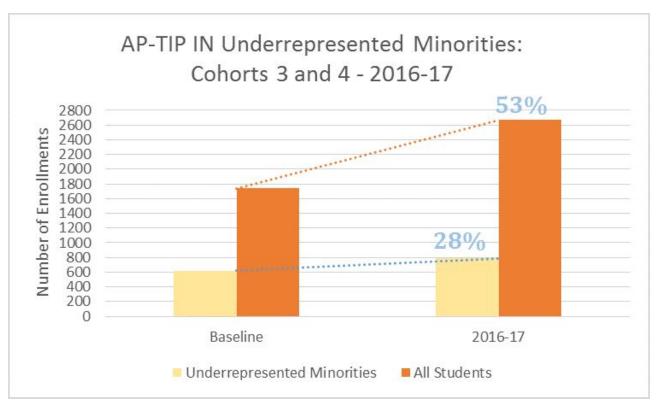
For the 2016-17 school year, AP-TIP IN added nine Cohort 4 schools to join its final NMSI cohort.

Cohort :	3 Schools	Cohort 4 Schools				
Arsenal Tech Broad Ripple G.R. Clark Crispus Attucks Eastern Greene	Edgewood Lebanon Morton New Prairie Whitko	Argos Clinton Prairie Griffith Lowell Merrillville	Mooresville Northwestern Twin Lakes Washington			

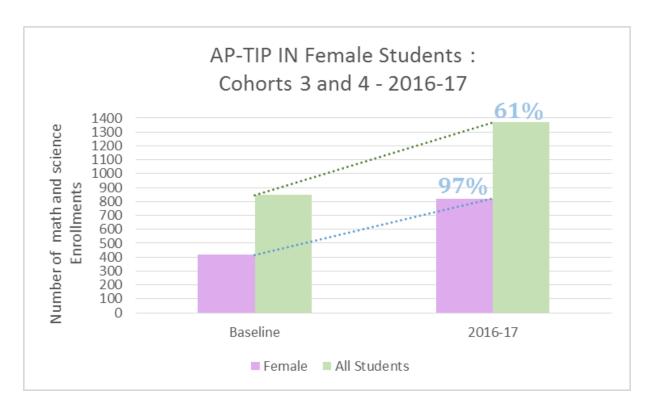
While funding was made available for teacher professional development and support from the Indiana Commission for Higher Education grants (Improving Teacher Quality Program and the STEM Teacher Recruitment Fund), teacher and student incentives were <u>not</u> available at the onset of this school year. As a result the aggressive enrollment increases in AP MSE courses previously experienced with AP-TIP IN schools was not as prominent with the Cohort 3 and 4 schools. Despite this, Cohort 3 and 4 schools were still able to increase enrollments by 53% compared to the baseline enrollments prior to AP-TIP IN participation.

Additionally, compared to their baselines, success in AP MSE courses was positive. While not as staggering compared to previous years, the 19 AP-TIP IN Cohort 3 and 4 schools were able to increase their AP MSE qualifying scores from a baseline of 496 to 796, an increase of 61%.

AP-TIP IN also tracks participation and success for historically underrepresented minority students in STEM. African American and Hispanic students are recruited to participate in AP Math, Science, and English (MSE) courses and females in AP math and science courses. The following graphs show how AP-TIP IN impacted those demographics in terms of AP enrollment in Cohort 3 and 4 schools during the 2016 – 17 school year.



African American and Hispanic student success also increased from a baseline of 54 AP MSE qualifying scores to 120 AP MSE qualifying scores earned this 2016 – 17 school year.



As an underrepresented group in STEM, female student participation in AP-TIP IN math and science courses is carefully tracked. The enrollment growth experienced by female students at Cohort 3 and 4 schools this 2016-17 school year was outpaced by the success with an increase in the number of qualifying scores from a baseline of 51 to 189.

To date, AP-TIP IN has worked with more than 320 AP MSE teachers and more than 19,000 students at 39 Indiana public high schools. These students have taken nearly 28,800 AP math, science, and English courses and earned more than 11,380 qualifying scores with a nearly a 40% success rate. This translates to approximately \$8,600,000* in college tuition saved for Hoosier families and by the state as students who earn qualifying scores are more likely to have a lower remediation rate and graduate on-time (*based on the average tuition cost for one-year of college at an Indiana public institute of higher education if a student enrolls in 30 credits; maintaining on-time graduation).

For the 2017-18 school year, AP-TIP IN was able to recruit eight Indiana high schools to participate in Cohort 5. Due to uncertainty in funding, one Cohort 4 school dropped out of the program. A successful grant application to ICHE's Improving Teacher Quality Program is funding teacher professional development only for these schools for the 2017-18 school year. This funding does not support all aspects of the AP-TIP IN program, including Content Director mentoring and teacher and student incentives. These are important components of the AP-TIP IN Program. Expansion to new schools will require an investment in the AP-TIP IN program.

RECENT TRENDS FOR AP

Expansion of the AP Capstone program

AP Capstone™ is a College Board program that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions.

AP Capstone is comprised of two AP courses — **AP Seminar** and **AP Research** — and is designed to complement and enhance the discipline-specific study in other AP courses. Participating schools can use the AP Capstone program to provide unique research opportunities for current AP students, or to expand access to AP by encouraging students to master the argument-based writing skills that the AP Capstone program develops.

Indiana Schools offering AP Capstone

- 1. Carmel High School Carmel, IN
- 2. Crawfordsville High School Crawfordsville, IN
- 3. Crown Point High School Crown Point, IN
- 4. Fishers High School Fishers, IN
- 5. Hamilton Southeastern High School Fishers, IN
- 6. Indiana Academy for Science, Math, and Humanities Muncie, IN
- 7. Lawrence Central High School Indianapolis, IN
- 8. Lawrence North High School Indianapolis, IN
- 9. Lowell Senior High School Lowell, IN
- 10. Madison Consolidated High School Madison, IN
- 11. Perry Meridian High School Indianapolis, IN
- 12. Signature School Evansville, IN
- 13. Westfield High School Westfield, IN